



Docket No.: M4065.0743/P743  
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Steven T. Harshfield, et al.

Application No.: 09/853,233

Filed: May 11, 2001

For: PCRAM MEMORY CELL AND METHOD  
OF MAKING SAME

Confirmation No.: 5984

Group Art Unit: 2823

Examiner: W. Coleman

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**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT (IDS)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing of a first Office Action after the filing of a request for continued examination under § 1.114. (37 CFR 1.97(b) (4)). Applicants hereby request that the Information Disclosure Statement be considered.

A copy of each reference on PTO/SB/08 is attached.

Specific portions of several references cited on the form PTO/SB/08 submitted herewith are pointed out in Appendix A, attached hereto. The brief explanation provided for each document is not tantamount to an admission that a document is “material” or that it qualifies as prior art. The Examiner is respectfully requested to utilize Appendix A only as a tool by which to better categorize the documents for substantive use in examining the claims of the application.

Documents discussed in Appendix A marked with an asterisk (\*) are indicated to be potentially more relevant than others. Such marking is provided only to assist the Examiner; however, the Examiner is requested to thoroughly review all documents cited herein.

The attention of the Patent and Trademark Office is hereby also directed to pending U.S. Application Serial Nos. 10/230,189, filed August 29, 2002 and 10/225,190, filed August 22, 2002. All of these relate to similar subject matter to that described and claimed in the present application. The Examiner is requested to review these applications for any information therein which may be deemed material to the present application.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is “prior art” for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1073, under Order No. M4065.0743/P743.

Dated: December 23, 2003

Respectfully submitted,

By 

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## **APPENDIX A**

U.S. Published Application No. 2003/0137869 to Kozicki: This document discloses in Fig. 4 and paragraph 68 a memory cell structure having a phase separated ion conductor 402, which includes high resistance portions 404 and low resistance portions 406.

U.S. Published Application No. 2003/0155589 to Campbell et al.: This document discloses a memory element formed as a stack of layers comprising a first electrode, a first chalcogenide glass, a silver-selenide layer, a second glass layer, and a second electrode.



PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031  
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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>		<b>Complete if Known</b>			
		Application Number	09/853,233		
		Filing Date	May 11, 2001		
		First Named Inventor	Steven T. Harshfield		
		Art Unit	2823		
		Examiner Name	W. Coleman		
Sheet	1	of	4	Attorney Docket Number	M4065.0743/P743

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	AA	2002/0106849	08/08/2002	Moore	
	AB	2002/0123170	09/05/2002	Moore et al.	
	AC	2002/0132417	09/09/2002	Li	
	AD	2002/0160551	10/31/2002	Harshfield	
	AE	2002/0168852	11/14/2002	Harshfield et al.	
	AF	2002/0190289	12/19/2002	Harshfield et al.	
	AG	2003/0032254	02/13/2003	Gilton	
	AH	2003/0038301	02/27/2003	Moore	
	AI	2003/0043631	03/06/2003	Gilton et al.	
	AJ	2003/0045049	03/06/2003	Campbell et al.	
	AK	2003/0045054	03/06/2003	Campbell et al.	
	AL	2003/0047765	03/13/2003	Campbell	
	AM	2003/0047772	03/13/2003	Li	
	AN	2003/0047773	03/13/2003	Li	
	AO	2003/0048519	03/13/2003	Kozicki	
	AP	2003/0049912	03/13/2003	Campbell et al.	
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	AS	2003/0095426	05/22/2003	Hush et al.	
	AT	2003/0096497	05/22/2003	Moore et al.	
	AU	2003/0107105	06/12/2003	Kozicki	
	AV	2003/0117831	06/26/2003	Hush	
	AX	2003/0128612	07/10/2003	Moore et al.	
	AY	2003/0137869	07/24/2003	Kozicki	
	AZ	2003/0143782	07/31/2003	Gilton et al.	
	AA1	2003/0155589	08/21/2003	Campbell et al.	
	AB1	2003/0155606	08/21/2003	Campbell et al.	
	AC1	2003/0156447	08/21/2003	Kozicki	
	AD1	2003/0156463	08/21/2003	Casper et al.	
	AE1	2003/0209728	11/13/2003	Kozicki et al.	
	AF1	2003/0209971	11/13/2003	Kozicki et al.	
	AG1	2003/0210564	11/13/2003	Kozicki et al.	
	AJ1				
Examiner Signature				Date Considered	

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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See attached Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.